ENVIRONMENTAL FRIENDLINESS OF IT BASED PROCESSES – A CASE STUDY OF SRI LANKAN BUSINESS ENVIRONMENT

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DECLARATION

I hereby certify that this dissertation does not incorporate, without acknowledgment, any material previously submitted for a Degree or Diploma in any University and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations.

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H.P.S.A FERNANDO Date

MBA/IT/10/9058

The above candidate has carried out research for the Masters dissertation under my supervision. To best of my knowledge the above particulars are correct.

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Dr Shantha Fernando (Supervisor) Date

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ABSTRACT

The global environmental crisis has been a hot topic for past few decades and it continues to attract attention of many individuals and institutions alike. One main reason for this is that its close association with global mega-trends; the crux of the matter has been shifting with the time. Undoubtedly, the current crisis incepted with the wake of the industrial era in late 1800's and over time organizations have learnt ways to mitigate environmental damages. During the past couple of centuries, the world has shifted from industrial era to the new age of Information Technology (IT); with that, the core reasons for global environmental crisis are also changing. IT has been increasingly contributing to environmental problems to a greater extent. Finding ways to mitigate adverse environmental impacts of IT is indeed the need of the hour. In order to make IT more eco-friendly, IT should adopt the new concept called 'Green IT'. Green IT is also popularly known as Green Computing. Many organizations are increasingly adopting Green IT practices due to the rising energy cost and the global warming issue.

In Sri Lankan context, many organizations still don't make a conscious effort to adopt Green IT practices into their business activities. This can be mainly attributed to their lack of knowledge and awareness on the subject. Hence, this paper intends to discuss the factors affecting environmental performance through IT based processes and to identify the areas where Green IT has already implemented in the selected organizations and their degree of success in adoption, in real life. Finally, the paper suggests simple practices, policies and technologies that organizations can adopt to fill up the loopholes relating to Green-IT.

Although the majority of Sri Lankan organizations lack clear vision on the whole Green IT initiative, with these findings it will help their IT processes to move towards more greener alternatives in the future. The organizations would be able to ripe many benefits by adopting simple practices, policies and technologies, which are laid out in this paper. Therefore, the researcher strongly believes that it is absolutely necessary to carryout Green-IT based researches in Sri Lanka and sincerely hopes that this paper will be a foundation for future researches in the subject area.

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LIST OF ABBREVIATIONS

AC	-	Alternating Current
BFR	-	Brominated Fire Retardants
CEMS	-	Carbon Emissions Management Software
CMM	-	Capability Maturity Model
CMR	-	Change Management Request
CPU	-	Central Processing Unit
CRAC	-	Computer Room Air Conditioning
CRAH	-	Computer Room Air Handling
CRM	-	Customer Relationship Management
CRT	-	Cathode Ray Tube
CSCI	-	Climate Savers Computing Initiative
DA	-	Documents in Advance
DC	-	Direct Current
DN	-	Delivery Note
EPA	-	Environmental Protection Agency
EPEAT	-	Electronic Product Environmental Assessment Tools
ERP	-	Enterprise Resource Planning
ESG	-	Enterprise Services Group
FMIS	-	Financial Management Information Systems
FSR	-	Field Service Report
GHG	-	Green House Gases
GP	-	Gross Profit
GRN	-	Good Receive Note
HP	-	Hewlett Packard
HRM	-	Human Resource Management
ICT	-	Information & Communication Technology
ISO	-	International Organization for Standardization

IT	-	Information Technology
ITS	-	Informatics Technical Services
LCD	-	Liquid Crystal Display
L/C	-	Letter of Credit
MRN	-	Material Request Note
Mtoe	-	Million tons
PBDEs	-	Polybrominated Diphenyl Ethers
PDA	-	Personal Digital Assistant
PI	-	Performer Invoice
PO	-	Purchase Order
PR	-	Purchase Request
PVC	-	Polyvinyl Chloride
RoHS	-	Restriction of Hazardous Substances
RTO	-	Request to Order
SCM	-	Supply Chain Management
SIM	-	Subscriber Identity Module
SMS	-	Short Message Service
SSCM	-	Simultaneous Source Control Managers
TCLP	-	Toxicity Characteristic Leaching Procedure
TT	-	Telegraphic Transfer
UPS	-	Uninterruptible Power Supplies
VAS	-	Value Added Service
VIP	-	Very Important Person
VoIP	-	Voice over Internet Protocol
VPN	-	Virtual Private Networks
WEEE	-	Waste Electrical and Electronic Equipment